

IN THE CLAIMS

Claim 1 (currently amended): An image formation device for forming an image by ~~transferring an image formed~~ on an image supporting member by an image formation unit, comprising:

first and second transfer units which ~~transfers~~ transfer an image formed on the same image supporting member to a recording medium having front and back sides; and

an inverting unit which inverts the front and back sides of said recording medium by an inverting path while conveying said recording medium from the first transfer unit to the second transfer unit, the inverting unit including a branched nail and conveyance rollers.

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Claim 2 (currently amended): The image formation device according to claim 1, wherein the image formation unit ~~is of the~~ utilizes an electrophotography method, ~~comprising~~ and comprises:

a latent image formation unit which forms an electrostatic latent image; and

a developing unit which develops the formed electrostatic latent image with a toner as a developing ~~section~~ particle.

Claim 3 (currently amended): The image formation device according to claim 2, wherein the image formation unit includes an intermediate transfer unit which transfers the ~~visualized~~ electrostatic latent image developed by the developing unit onto an intermediate transfer member. Fig 11

Claim 4 (currently amended): The image formation device according to claim 2, wherein the developing unit ~~is provided by~~ includes one or more developing units.

Claim 5 (currently amended): The image formation device according to claim 3, wherein the one or more image producing unit units are in contact with said intermediate transfer member ~~is provided by one or more~~.

Claim 6 (original): The image formation device according to claim 5, wherein one or more photosensitive members are contacted with the intermediate transfer member for executing said intermediate transfer.

Claim 7 (cancelled).

Claim 8 (currently amended): The image formation device according to claim 1, wherein the image formation unit ~~is of any method selected from the group consisting~~ utilizes one of the an ink jet method, the a toner jet method, the an ion flow method, and the a magnetography method.

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Claim 9 (currently amended): The image formation device according to ~~any of claims~~ claim 1, wherein the image formation unit forms first and second surface images ~~a first surface image and a second surface image to be transferred each onto the front and back sides of said recording medium~~, the first transfer unit transfers the first surface image onto a first surface of said recording medium, and the second transfer unit transfers the second surface image onto a second surface of said recording medium inverted by the inverting unit.

Claim 10 (original): The image formation device according to claim 9, wherein the first transfer unit comprises a non-contact transfer unit which transfers only the first surface image onto the first surface of said recording medium without influencing the second surface image.

Claim 11 (currently amended): The image formation device according to claim 9, wherein the first transfer unit ~~comprises a separation unit which separates the first surface image~~ is configured to be separable from the image supporting member after being the first surface image is transferred onto the first surface of said recording medium from the image supporting member while the second surface image passes by a position of said first transfer unit position.

Claim 12 (currently amended): The image formation device according to claim 9, wherein the image formation device further comprises a maintenance unit which maintains the first surface image transferred onto the first surface of said recording medium by the first transfer unit ~~on said first surface for preventing~~ and prevents disturbance at the time of inverting the recording medium, ~~is provided.~~

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Claim 13 (original): The image formation device according to claim 12, wherein the maintenance unit comprises a heating fixation unit which fixes the first surface image of said recording medium.

Claim 14 (currently amended): The image formation device according to claim 13, wherein the maintenance unit comprises an application unit which applies a bias of the same polarity as ~~the~~ a toner charge polarity to a member in contact with the first surface image transferred onto said recording medium between an installation position of the first transfer unit ~~installation position~~ and an installation position of the second transfer unit ~~installation position.~~

Claim 15 (currently amended): The image formation device according to claim 9, wherein the second transfer unit ~~comprises a transfer unit which~~ transfers without contact with the first surface of said recording medium.

Claim 16 (currently amended): The image formation device according to claim 9, wherein the image formation device further comprises a transfer fixation unit which executes fixation simultaneously with transfer of at least one of the first and second transfer unit, ~~is provided~~ units.

Claim 17 (currently amended): The image formation device according to claim 9, wherein the image formation device further comprises first and second fixation ~~unit~~ units each for executing fixation immediately after ~~the end of the~~ completing a transfer ~~step~~ of the first and second transfer unit ~~are provided~~ units, and

an amount of heat ~~the thermal amount~~ provided to a paper by the first fixation unit is set at an amount smaller than an amount of heat ~~the thermal amount~~ provided to said recording medium by the second fixation unit.

Claim 18 (currently amended): The image formation device according to claim 17, wherein the ~~thermal~~ amount of heat in the first fixation unit is set in a range ~~without generating the~~ in which a cold offset is not caused.

Claim 19 (currently amended): The image formation device according to claim 17, wherein the first fixation unit comprises a fixation device ~~including~~ that includes a heating member ~~having,~~ comprising:

a heat generating member;

a film in contact with said heating member; and

a pressuring member in contact with said heating member with pressure via said film, for heating and fixation by passing a the recording medium with an unfixed image formed thereon between said film and said pressuring member.

Claim 20 (currently amended): The image formation device according to claim 9, wherein the image formation device further comprises:

a tip end resist unit which ~~matches~~ aligns a predetermined position in ~~the~~ a conveyance direction of said recording medium to be conveyed into the second transfer unit, and

the with an image tip end of the second surface image, is provided.

Claim 21 (currently amended): The image formation device according to claim 9, wherein the image formation device further comprises a lateral resist adjusting unit which matches adjusts a position of said recording medium in ~~the~~ a direction orthogonal to ~~the~~ a conveyance direction between the first transfer unit and the second transfer unit, ~~is provided.~~

Claim 22 (currently amendment): The image formation device according to claim 9, wherein a conveyance path for passage of said recording medium is set ~~only~~ in at least one of the first transfer unit ~~or~~ and the second transfer unit at the time of forming ~~an image only on~~ each of said first and second surface images ~~surface or said second surface~~.

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Claim 23 (currently amended): The image formation device according to claim 9, wherein an interval between the first surface image and the second surface image is ~~set by~~ at least (the time necessary for inversion of the recording medium) x (the moving speed of the image supporting member) ~~or more~~.

Claim 24 (currently amended): The image formation device according to claim 9, wherein ~~the~~ a conveyance speed of the recording medium to be conveyed to the second transfer unit after the image transfer by the first transfer unit is set at a speed higher than ~~the~~ a linear speed of the image supporting member in ~~the~~ a rotational direction.

Claim 25 (currently amended): The image formation device according to claim 9, wherein at least one of the first and second transfer units ~~first transfer unit and the second transfer unit is of the~~ utilizes a transfer belt method.

Claim 26 (currently amended): The image formation device according to claim 1, wherein the image formation unit ~~is of~~ utilizes a wet electrophotography method, ~~comprising~~ and comprises:

a latent image formation unit which forms an electrostatic latent image; and

a developing unit which visualizes the formed electrostatic latent image with a liquid developing agent containing a toner as a visualizing particle dispersed in a liquid solvent.

Claim 27 (original): The image formation device according to claim 26, wherein said liquid developing agent has a characteristic to be cured by a predetermined physical function.

Claim 28 (original): The image formation device according to claim 26, wherein the image formation unit includes an intermediate transfer unit which transfers the visualized image developed by the developing unit onto an intermediate transfer member.

Claim 29 (currently amended): The image formation device according to claim 28, wherein ~~the~~ one or more image producing ~~unit~~ units are in contact with said intermediate transfer member ~~is provided by one or more~~.

Claim 30 (original): The image formation device according to claim 29, wherein one or more photosensitive members are contacted with the intermediate transfer member for executing said intermediate transfer.

Claim 31 (cancelled).

Claim 32 (currently amended): The image formation device according to ~~any of~~ claims claim 26, wherein the image formation unit forms first and second surface images a ~~first surface image and a second surface image to be transferred each onto the front and back sides of said recording medium~~, the first transfer unit transfers the first surface image onto a first surface of said recording medium, and the second transfer unit transfers the second surface image onto a second surface of said recording medium inverted by the inverting unit, ~~with a unit which hardens at the time by~~ and a predetermined physical function hardens the first surface image transferred by the first transfer unit onto the first surface of said recording medium, ~~provided~~.

Claim 33 (original): The image formation device according to claim 32, wherein the first transfer unit comprises a non-contact transfer unit which transfers only the first surface image onto the first surface of said recording medium without influencing the second surface image.

Claim 34 (currently amended): The image formation device according to claim 32, wherein the first transfer unit ~~comprises a separation unit which separates the first surface~~

image is configured to be separable from the image supporting member after being the first surface image is transferred onto the first surface of said recording medium from the image supporting member while the second surface image passes by a position of said first transfer unit position.

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Claim 35 (currently amended): The image formation device according to claim 32, wherein the image formation device further comprises a maintenance unit which maintains the first surface image transferred onto the first surface of said recording medium by the first transfer unit on said first surface ~~for preventing and prevents~~ disturbance at the time of inverting the recording medium, ~~is provided.~~

Claim 36 (original): The image formation device according to claim 35, wherein the maintenance unit comprises a heating fixation unit which fixes the first surface image of said recording medium.

Claim 37 (currently amendment): The image formation device according to claim 36, wherein the maintenance unit further comprises an application unit which applies a bias of the same polarity as ~~the~~ a toner charge polarity to a member in contact with the first surface image transferred onto said recording medium between an installation position of the first transfer unit ~~installation position~~ and an installation position of the second transfer unit ~~installation position~~.

Claim 38 (original): The image formation device according to claim 32, wherein the second transfer unit comprises a transfer unit which transfers without contact with the first surface of said recording medium.

Claim 39 (currently amendment): The image formation device according to claim 32, wherein the image formation device further comprises:

a tip end resist unit which ~~matches~~ aligns a predetermined position in the conveyance direction of said recording medium to be conveyed into the second transfer unit, ~~and~~

~~the~~ with an image tip end of the second surface image, ~~is provided~~.

Claim 40 (currently amendment): The image formation device according to claim 32, wherein the image formation device further comprises a lateral resist adjusting unit which ~~matches~~ adjusts a position of said recording medium in ~~the~~ a direction orthogonal to ~~the~~ a conveyance direction between the first transfer unit and the second transfer unit, ~~is provided~~.

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Claim 41 (currently amendment): The image formation device according to claim 32, wherein a conveyance path for passage of said recording medium is set ~~only~~ in at least one of the first transfer unit ~~or~~ and the second transfer unit at the time of forming ~~an image only on~~ each of said first and second surface images ~~surface or said second surface~~.

Claim 42 (currently amendment): The image formation device according to claim 32, wherein an interval between the first surface image and the second surface image is set by at least (the time necessary for inversion of the recording medium) x (the moving speed of the image supporting member) ~~or more~~.

Claim 43 (currently amendment): The image formation device according to claim 32, wherein ~~the~~ a conveyance speed of the recording medium to be conveyed to the second transfer unit after the image transfer by the first transfer unit is set at a speed higher than ~~the~~ a linear speed of the image supporting member in ~~the~~ a rotational direction.


Claim 44 (currently amended): The image formation device according to claim 32, wherein at least one of the first and second transfer units ~~first transfer unit and the second transfer unit is of the~~ utilizes a transfer belt method.

Claim 45 (original): The image formation device according to claim 27, wherein the predetermined physical function is an optical function.

Claim 46 (currently amended): The image formation device according to claim 26, wherein the liquid solvent of said liquid developing agent is volatile.

Claim 47 (currently amended): The image formation device according to claim 26, wherein the liquid solvent of said liquid developing agent is permeable to the recording medium.

Claim 48 (currently amended): The image formation device according to claim 26, wherein the developing unit ~~is provided by~~ includes one or more developing members.

 Claim 49 (currently amended): The image formation device according to claim 32, wherein a substance having a surface energy lower than the surface energy of the liquid developing agent is coated on a member to be contacted with the first surface image transferred onto said recording medium, between an installation position of the first transfer unit ~~installation position~~ and an installation position of the second transfer unit ~~installation position~~.

Claim 50 (currently amended): The image formation device according to claim 1, wherein the an outer circumference of said image supporting member is set at least by a length of { (the first surface image length) + (the second surface image length) + (inverting time by the inverting unit) x (image supporting member speed) }, and wherein ~~with the premise that~~ images to be transferred onto the front and back sides of said recording medium are first and second surface images ~~a first image and a second image~~, the first surface image is transferred onto the first surface of said recording medium by the first transfer unit, and the second surface image is transferred onto the second surface of said recording medium, respectively.

Claim 51 (currently amended): The image formation device according to claim 1, wherein said image supporting member comprises one of a photosensitive member ~~or~~ and an intermediate transfer member.

Claim 52 (currently amended): The image formation device according to ~~any of~~
~~claims claim~~ claim 1, wherein said image supporting member is formed in a drum-like shape, ~~or a~~
~~belt-like shape.~~

Claim 53 (currently amendment): The image formation device according to claim 1,
wherein the image formation device further comprises a transfer fixation unit ~~which executes~~
~~each~~ executing each fixation simultaneously with transfer of at least one of the first and
second transfer ~~unit, is provided~~ units.

Claim 54 (currently amended): The image formation device according to claim 1,
wherein the image formation device further comprises:

first and second fixation ~~unit~~ units each ~~for~~ executing fixation immediately after ~~the~~
~~end of the~~ completing a transfer step of the first and second transfer unit ~~are provided;~~ and
an amount of heat ~~the thermal amount~~ provided to a paper by the first fixation unit is
set at an amount smaller than an amount of heat ~~the thermal amount~~ provided to said
recording medium by the second fixation unit.

Claim 55 (currently amended): The image formation device according to claim 54,
wherein the ~~thermal~~ amount of heat in the first fixation unit is set in a range ~~without~~
~~generating the~~ in which a cold offset is not caused.

Claim 56 (currently amended): The image formation device according to claim 54,
wherein the first fixation unit comprises a fixation device ~~including~~ that includes a heating
member ~~having,~~ comprising:


a heat generating member;

a film in contact with said heating member; and

a pressuring member in contact with said heating member with pressure via said film,
for heating and fixation by passing a the recording medium with an unfixed image formed
thereon between said film and said pressuring member.

Claim 57 (currently amended): The image formation device according to claim 1, wherein the image formation device further comprises a cooling unit which cools said image supporting member, ~~is provided~~.

Claim 58 (currently amended): The image formation device according to claim 1, wherein the image formation device further comprises an interleaf mechanism ~~is further~~ provided.

 Claim 59 (currently amended): An image formation method for forming an image by ~~transferring an image formed~~ on an image supporting member by an image formation unit, comprising:

~~an image formation step of~~ forming a plurality of images on said image supporting member;

~~a first transfer step of~~ first transferring ~~one~~ an image on said image supporting member on a first surface of a recording medium;

~~an inverting step of~~ inverting the front and back sides of the recording medium using a branched nail and conveyance rollers with the image transferred onto said first surface at the ~~first transfer step~~ first transferring; and

~~a second transfer step of~~ second transferring another image on said image supporting member onto a second surface of said recording medium with ~~the~~ front and back sides inverted at the inverting ~~step~~.

Claim 60 (currently amended): The image formation method according to claim 59, wherein ~~an further~~ a different image can be formed between said image transferred onto said first surface and said ~~other~~ another image.

Claims 61-62 (cancelled).

Claim 63 (new): The image formation device according to claim 6, wherein the developing unit includes one or more developing members for each of said one or more photosensitive members for executing a developing operation.

Claim 64 (new): The image formation device according to claim 30, wherein the developing unit is one or more developing units for each of said one or more photosensitive members for executing a developing operation.

Claim 65 (new): The image formation device according to claim 1, wherein said image supporting member is formed in a belt-like shape.

Claim 66 (new): An image formation system comprising:
an inputting device for inputting image data; and
an image formation device for forming an image based on the inputted image data, wherein the image formation device comprises an interleaf mechanism and an image information memory unit which accumulates the inputted image data for at least one screen, wherein the image formation device forms an image on an image supporting member by an image formation unit that includes:

first and second transfer units which transfer an image formed on the same image supporting member to a recording medium, and

an inverting unit which inverts front and back sides of said recording medium by an inverting path while conveying said recording medium from the first transfer unit to the second transfer unit.

Claim 67 (new): An image formation system comprising:

an inputting device for inputting image data, wherein the inputting device includes an image reading device for optically reading a manuscript having two surfaces; and

an image formation device for forming an image based on the inputted image data, wherein the image formation device forms an image on an image supporting member by an image formation unit that includes:

first and second transfer units which transfer an image formed on the same image supporting member to a recording medium; and

an inverting unit which inverts front and back sides of said recording medium by an inverting path while conveying said recording medium from the first transfer unit to the second transfer unit, the inverting unit including a branched nail and conveyance rollers, wherein the time for reading both surfaces of the manuscript of said image reading device is set to at most the time for exposing the dual sided images on the image supporting member.

Claim 68 (new): An image formation device for forming an image on an image supporting member by an image formation unit, comprising:

first and second transfer units which transfer an image formed on the same image supporting member to a recording medium having front and back sides; and

an inverting unit which inverts the front and back sides of said recording medium by an inverting path while conveying said recording medium from the first transfer unit to the second transfer unit,

wherein the image formation unit utilizes an electrophotography method and comprises:

a latent image formation unit which forms an electrostatic latent image,

a developing unit which develops the formed electrostatic latent image with a toner as a developing particle; and

an intermediate transfer unit which transfers the electrostatic latent image developed by the developing unit onto an intermediate transfer member.

Claim 69 (new): An image formation device for forming an image on an image supporting member by an image formation unit, comprising:

first and second transfer units which transfer an image formed on the same image supporting member to a recording medium having front and back sides; and

an inverting unit which inverts the front and back sides of said recording medium by an inverting path while conveying said recording medium from the first transfer unit to the second transfer unit,

wherein the image formation unit utilizes an electrophotography method and comprises:

a latent image formation unit which forms an electrostatic latent image, and one or more developing units which develop the formed electrostatic latent image with a toner as a developing particle.

Claim 70 (new): An image formation device for forming an image on an image supporting member by an image formation unit, comprising:

first and second transfer units which transfer an image formed on the same image supporting member to a recording medium having front and back sides; and


an inverting unit which inverts the front and back sides of said recording medium by an inverting path while conveying said recording medium from the first transfer unit to the second transfer unit,

wherein the image formation unit utilizes one of an ink jet method, a toner jet method, an ion flow method, and a magnetography method.

Claim 71 (new): An image formation device for forming an image on an image supporting member by an image formation unit, comprising:

first and second transfer units which transfer an image formed on the same image supporting member to a recording medium having front and back sides;

an inverting unit which inverts the front and back sides of said recording medium by an inverting path while conveying said recording medium from the first transfer unit to the second transfer unit, wherein the image formation unit forms first and second surface images, the first transfer unit transfers the first surface image onto a first surface of said recording medium, and the second transfer unit transfers the second surface image onto a second surface of said recording medium inverted by the inverting unit; and

 a maintenance unit which maintains the first surface image transferred onto the first surface of said recording medium by the first transfer unit and prevents disturbance at the time of inverting the recording medium.

Claim 72 (new): An image formation device for forming an image on an image supporting member by an image formation unit, comprising:

first and second transfer units which transfer an image formed on the same image supporting member to a recording medium having front and back sides;

an inverting unit which inverts the front and back sides of said recording medium by an inverting path while conveying said recording medium from the first transfer unit to the second transfer unit; and

a transfer fixation unit which executes fixation simultaneously with transfer of at least one of the first and second transfer units,

wherein the image formation unit forms first and second surface images, the first transfer unit transfers the first surface image onto a first surface of said recording medium, and the second transfer unit transfers the second surface image onto a second surface of said recording medium inverted by the inverting unit.

Claim 73 (new): An image formation device for forming an image on an image supporting member by an image formation unit, comprising:

first and second transfer units which transfer an image formed on the same image supporting member to a recording medium having front and back sides;

an inverting unit which inverts the front and back sides of said recording medium by an inverting path while conveying said recording medium from the first transfer unit to the second transfer unit; and

first and second fixation units each executing fixation immediately after completing a transfer of the first and second transfer units,

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wherein the image formation unit forms first and second surface images, the first transfer unit transfers the first surface image onto a first surface of said recording medium, and the second transfer unit transfers the second surface image onto a second surface of said recording medium inverted by the inverting unit, an amount of heat provided to a paper by the first fixation unit is set at an amount smaller than an amount of heat provided to said recording medium by the second fixation unit.

~~Claim 74 (new): An image formation device for forming an image on an image-~~
supporting member by an image formation unit, comprising:

first and second transfer units which transfer an image formed on the same image supporting member to a recording medium having front and back sides;

an inverting unit which inverts the front and back sides of said recording medium by an inverting path while conveying said recording medium from the first transfer unit to the second transfer unit, wherein the image formation unit forms first and second surface images, the first transfer unit transfers the first surface image onto a first surface of said recording medium, and the second transfer unit transfers the second surface image onto a second surface of said recording medium inverted by the inverting unit;

a tip end resist unit which aligns a predetermined position in a conveyance direction of said recording medium to be conveyed into the second transfer unit with an image tip end of the second surface image.

Claim 75 (new): An image formation device for forming an image on an image supporting member by an image formation unit, comprising:

first and second transfer units which transfer an image formed on the same image supporting member to a recording medium having front and back sides;

an inverting unit which inverts the front and back sides of said recording medium by an inverting path while conveying said recording medium from the first transfer unit to the second transfer unit; and

a lateral resist adjusting unit which adjusts a position of said recording medium in a direction orthogonal to a conveyance direction between the first transfer unit and the second transfer unit,

wherein the image formation unit forms first and second surface images, the first transfer unit transfers the first surface image onto a first surface of said recording medium, and the second transfer unit transfers the second surface image onto a second surface of said recording medium inverted by the inverting unit.

Claim 76 (new): An image formation device for forming an image on an image supporting member by an image formation unit, comprising:

first and second transfer units which transfer an image formed on the same image supporting member to a recording medium having front and back sides; and

an inverting unit which inverts the front and back sides of said recording medium by an inverting path while conveying said recording medium from the first transfer unit to the second transfer unit,

wherein the image formation unit forms first and second surface images, the first transfer unit transfers the first surface image onto a first surface of said recording medium, and the second transfer unit transfers the second surface image onto a second surface of said recording medium inverted by the inverting unit, and wherein an interval between the first surface image and the second surface image is at least (the time necessary for inversion of the recording medium) x (the moving speed of the image supporting member).

Claim 77 (new): An image formation device for forming an image on an image supporting member by an image formation unit, comprising:

first and second transfer units which transfer an image formed on the same image supporting member to a recording medium having front and back sides; and

an inverting unit which inverts the front and back sides of said recording medium by an inverting path while conveying said recording medium from the first transfer unit to the second transfer unit,


wherein the image formation unit forms first and second surface images, the first transfer unit transfers the first surface image onto a first surface of said recording medium, and the second transfer unit transfers the second surface image onto a second surface of said recording medium inverted by the inverting unit, and wherein a conveyance speed of the recording medium to be conveyed to the second transfer unit after the image transfer by the first transfer unit is set at a speed higher than a linear speed of the image supporting member in a rotational direction.

Claim 78 (new): An image formation device for forming an image on an image supporting member by an image formation unit, comprising:

first and second transfer units which transfer an image formed on the same image supporting member to a recording medium having front and back sides; and

an inverting unit which inverts the front and back sides of said recording medium by an inverting path while conveying said recording medium from the first transfer unit to the second transfer unit,

wherein the image formation unit forms first and second surface images, the first transfer unit transfers the first surface image onto a first surface of said recording medium, and the second transfer unit transfers the second surface image onto a second surface of said recording medium inverted by the inverting unit, and wherein at least one of the first and second transfer units utilizes a transfer belt method.

 Claim 79 (new): An image formation device for forming an image on an image supporting member by an image formation unit, comprising:

first and second transfer units which transfer an image formed on the same image supporting member to a recording medium having front and back sides; and

an inverting unit which inverts the front and back sides of said recording medium by an inverting path while conveying said recording medium from the first transfer unit to the second transfer unit,

wherein the image formation unit utilizes a wet electrophotography method and comprises:

a latent image formation unit which forms an electrostatic latent image, and

a developing unit which visualizes the formed electrostatic latent image with a liquid developing agent containing a toner as a visualizing particle dispersed in a liquid solvent.

Claim 80 (new): An image formation device for forming an image on an image supporting member by an image formation unit, comprising:

first and second transfer units which transfer an image formed on the same image supporting member to a recording medium having front and back sides;

an inverting unit which inverts the front and back sides of said recording medium by
an inverting path while conveying said recording medium from the first transfer unit to the
second transfer unit; and

*as
could* first and second fixation units each executing fixation immediately after completing a
transfer of the first and second transfer unit,

wherein an amount of heat provided to a paper by the first fixation unit is set at an
amount smaller than an amount of heat provided to said recording medium by the second
fixation unit.
